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TRAINING ANALYSIS AND EVALUATION GROUP (NAVY) ORLANDO FL F/6 5/9  
NAVY RECRUIT OPTIMIZATION: POST-1980: SEPARATION PROCESS. (U)

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## NAVY RECRUIT OPTIMIZATION, POST-1980: SEPARATION PROCESS

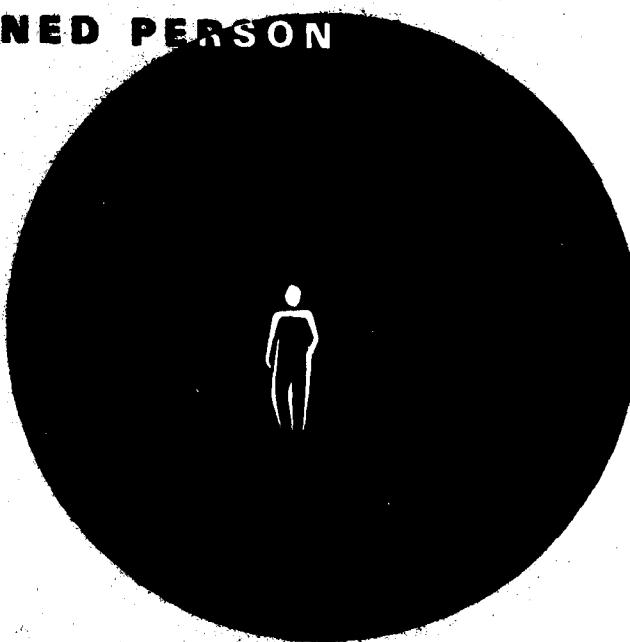


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TRAINING ANALYSIS AND EVALUATION GROUP  
ORLANDO, FLORIDA

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TAEG Report No. 100

NAVY RECRUIT OPTIMIZATION, POST-1980:  
SEPARATION PROCESS

Dorothy V. Mew

Training Analysis and Evaluation Group

April 1981



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20. ABSTRACT (Continue on reverse side if necessary and identify by block number) This report discusses the separation process by which certain Navy recruits are discharged. The objectives of the study were to: <ul style="list-style-type: none"><li>• examine procedures related to the assignment of separation codes for Navy recruits</li><li>• determine suitability of coded reasons available for assignment by Aptitude Boards</li></ul>		
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20. ABSTRACT (continued)

- Identify the factors which contribute to variability in assignment of codes

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SECTION I

INTRODUCTION

In April 1975, the Chief of Naval Education and Training (CNET) directed the Training Analysis and Evaluation Group (TAEG) to conduct a multiphase study addressing the optimization of Navy Recruit Training for the post-1980 period.

The initial study phase was an assessment of the existing (1975-1976) training program (Copeland, Henry, Mew, Cordell, 1976). This resulted in a training system design and recommendations for improved training strategies (Copeland, Henry, Mew, 1978). Additional studies have been conducted dealing with follow-on Apprentice Training and the training of recruit training staff personnel, both officer and enlisted. This report discusses another critical element in the Recruit Training System, the separation process (figure 1) by which certain recruits are discharged.

BACKGROUND

The high rate of attrition that occurs among first-term personnel is a subject of growing concern to the Department of Defense (DOD). The Defense Manpower Commission (DMC) estimated that DOD incurs an annual cost of approximately a billion dollars because 1 out of 4 DOD accessions is involuntarily separated prior to completion of the first-term of enlistment (Defense Manpower Commission, 1976).

As defined in DOD Directive 1315.7, attrition is "separation prior to completion of the contractual active duty obligation." Approximately 12 percent of Navy first-term attrition occurs in Recruit Training. An additional 28 percent of Navy accessions attrite subsequent to Recruit Training. For FY 1980, 90,929 recruits reported to the Navy Recruiting Command (NAVCRUITCOM) for active duty and 8,883 recruits (9.7 percent) were released from service prior to completion of Recruit Training. Of the 8,883, roughly 60 percent of the attrites were for causes considered beyond the control of the Navy; e.g., medical, erroneous enlistment, or psychological reasons. The Recruit Training community has become increasingly concerned with attrition, both in terms of cost and its relationship to instructional effectiveness. In an attempt to reduce attrition, training variables which impact on attrition are continually assessed. Accuracy in identifying these training variables is dependent upon proper classification of reasons for discharge.

Impetus was given to this study by a Navy Audit Team finding that there was significant variation in the classification of reasons for discharge across Recruit Training Commands (RTCs) located in Orlando, FL; San Diego, CA; and Great Lakes, IL (Audit Report T20069, 1979). (See appendix A for excerpts from the audit report.) The Navy Audit Team assumed that numbers and causes for attrition should not differ significantly across the three commands. The team indicated that proper classification of attrites is essential if decision makers are to accurately evaluate attrition and hence be in a position to identify ameliorative programs. As a result of the Audit Team recommendations, the

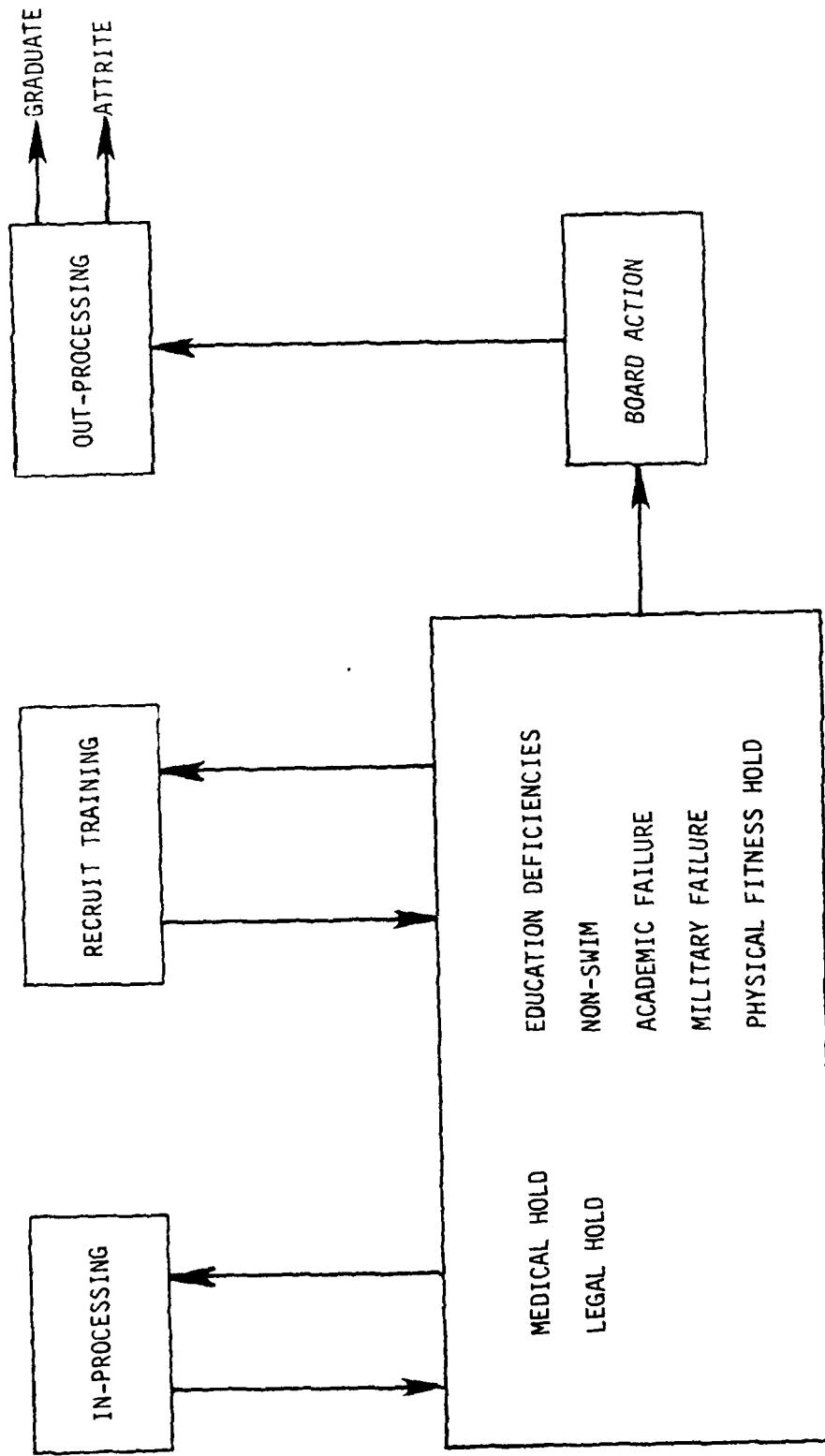


Figure 1. Flow Diagram Showing RTC Pipeline for Correcting Deficiencies and Graduating/Attriting Recruits

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CNET<sup>1</sup> tasked the TAEG to examine separation procedures related to code assignment and to make recommendations for improvements which address Navy Audit Team concerns.

### OBJECTIVES

The objectives of this study were to (1) examine procedures related to the assignment of separation codes for Navy recruits, (2) determine suitability of coded reasons available for assignment by Naval Aptitude Boards (NAB), and (3) identify the factors which contribute to variability in assignment of codes. Also, consideration was given to the implication of code assignment irregularities for ameliorative management actions.

### APPROACH

Visits were made to the RTCs at Great Lakes and San Diego to obtain data on separation procedures. The data obtained at those sites were compared with information obtained at RTC Orlando. The manuals and instructions governing separation procedures were examined, personnel directly involved in the separation process were consulted, and the conduct of Board procedures was observed. Attrition figures for fiscal years 1978, 1979, and 1980, as furnished by the Chief of Naval Technical Training (CNTECHTRA), were analyzed. Specific events in individual cases of separation were not examined.

### ORGANIZATION OF THE REPORT

In addition to this introductory section, the report contains four other sections and three appendices. Section II provides an overview of the separation process. Section III provides analyses of attrition data and sources of coding variability. Section IV discusses the results of the analyses and other information obtained during the study and offers suggestions for improving separation procedures. Section V contains recommendations for increasing the accuracy of attrition coding.

Appendix A contains excerpts from Naval Audit Service Report T20069. Appendix B presents the analysis of variance tables. Appendix C presents a comparison of the use of psychological categories, personality disorder and situational reaction, across the three RTCs for fiscal years 1978, 1979, and 1980.

<sup>1</sup>CNETC 1tr Code 62/nr, 1900, 62/95 of 28 November 1979 requested that CNET task TAEG to perform an in-depth analysis of the present methods of recruit attrition classification. CNET approved this recommendation and TAEG was tasked by basic reference.

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SECTION II

OVERVIEW OF THE SEPARATION PROCESS

This section provides an overview of the process by which new accessions are separated from the Navy.

The RTC Separation Subsystem is part of the larger DOD system and is directly accountable to the DOD for attrition of new accessions. General guidance in separation policy is provided by DOD Directive 1332.14 which outlines broad areas and reasons for administrative separations. Most of the changes in service regulations occur as a result of some change in DOD Directive 1332.14, after which the services are normally given 60 days to make printed changes in their individual directives. Compliance with the spirit of the changed DOD directive gradually occurs as soon as the services can notify their respective administering officials.

The general DOD guidance is an attempt to provide a common framework for service separation policies. The DOD directive contains only broad explanations of separation reasons and general guidelines as to the applicability of potentially controversial sections. This generality makes it possible for the services to develop their own interpretations of prescribed separation reasons and often results in differences among the various service branches. Other instances of differences among the services in separation codes/processes seem to be due to variations in administrative implementation of policy. The Department of the Navy disseminates separation policy and guidance via Secretary of the Navy instructions (1900 series), Bureau of Naval Personnel Manual 3420187, and Bureau of Medicine instructions (1910 series). Table 1 lists the methods and types of discharge by which enlisted individuals may be involuntarily separated from the Naval Service (other than by reason of being physically unfit).

Specific guidance for Aptitude Board procedures, reporting procedures, and assignment of separation categories is provided the three RTCs via CNTECHTRA instructions 1910.3 and 1900.2C. Within each RTC, guidance is provided via NAVCRUITRACOM instructions. (These instructions are listed in the bibliography of this report.) Once a separation decision has been made, the recruit is transferred to the Commander, Naval Training Center who has administrative responsibility for processing and final authority for dispensation.

The COMNAVCRUITCOM attrition tracking procedure is elaborate. Each month a number of reports are prepared by COMNAVCRUITCOM on recruit training attrition data. These reports relate attrition to accessions in terms of recruiting areas and districts, mental groups, education level, race, and sex. This information is intended to identify actual trends and potential problem areas in recruit attrition in order to focus attention and resources toward reducing attrition and increasing the net effectiveness of recruiting. The data also provide a basis for assessing the productivity of recruiting areas, districts, zones, stations, and individual recruiters. Individuals who attrite are identified to specific recruiters and Armed Forces Entrance and Examination Stations (AFEES) which processed the individuals. Each attrite is further identified in terms of 33 pre-established reasons for attriting, such as prior service drug use, medical, lack of motivation, and functionally inadequate. Table 2 lists

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TABLE 1. METHODS AND DISCHARGE TYPES FOR INVOLUNTARY SEPARATION OF  
ENLISTED PERSONNEL FROM THE NAVAL SERVICE

<u>Method</u>	<u>Called</u>	<u>Discharge Certificate/ Type</u>	<u>Reference</u>	<u>Remarks</u>
Sentence of GCM	Discharge	Yes (Diu, BDU)		
Sentence of SPCM	Discharge	Yes (BCD)		
Board action	Discharge	Yes (Hon, Gen, Oth)	BUPERSMAN 3420185	Misconduct
Board action	Discharge	Yes (Hon, Gen)	BUPERSMAN 3420184	Unsuitability, Board only if more than 8 yrs service
Command recommendation	Discharge	Yes (Hon, Gen)	BUPERSMAN 3420184	Unsuitability, No board if less than 8 yrs.
CNP action	Discharge	Yes (Hon, Gen)	BUPERSMAN 3850220	Convenience of Government.
Secretarial action	Dropping from rolls	No	10 U.S.C 1163	Receives 1tr from SECNAV vice discharge. This statute applies to all reserves, not just officers. Only requires Secretarial vice Presidential action.
Good of the Service	Discharge	Yes (Gen, Oth)	BUPERSMAN	At individual's request to GCM authority to escape trial by court-martial.

Source: Manual for Discharge Review, SECNAVINST 5420.174A

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reasons for discharge, appropriate codes, and authority for discharge as provided by CNTECUTRAINST 1900.2C. This information is used by NAVCRUITRACOMs to prepare monthly attrition reports which are forwarded on the 10th of the month to the following activities:

Chief of Naval Technical Training (Code N62)  
Chief of Naval Operations (OP 991C2)  
Chief of Naval Education and Training (Code 21)  
Chief, Bureau of Medicine and Surgery (Code 33)  
Commander, Navy Recruiting Command (Codes 24 and 25)  
Each of the three RTCs

The significance in accurately stating the reasons for separation of personnel lies in the fact that such reasons determine the type of discharge which in turn establishes the alternatives of the discharged individual for future re-enlistment and benefits. Figure 2 illustrates the relationship of reasons for separation to the type of discharge authorized. Examination of this figure indicates that considerable flexibility exists in the assignment of a discharge code for given reasons for separation.

RTC SEPARATION PROCESS

Prior to separation a recruit must appear before formal administrative discharge boards. BUPERSMAN ART 3420187 specifies that the composition of the Administrative Discharge Board shall consist of not less than three commissioned officers on active duty, at least one of whom shall be in the grade of lieutenant commander or higher. In order to avoid split decisions, commanding officers should not appoint an even number of officers to the Board.

When the service member under consideration for discharge is a woman, the Board shall, upon her request and if reasonably available, include a woman officer as a voting member. In the case of a minority service member, the Board shall include an officer of the same minority group. If a woman officer (or an officer of the same minority group as the individual under consideration) is not available, the reason should be stated in the record of proceedings.

In the essential elements, the RTCs are comparable in regard to the separation process. (Figure 3 shows a composite flow chart of the separation process for the three RTCs.) A recruit who is experiencing problems which threaten successful completion of the program, may be placed in remedial training at various points in the process and either returned to basic training or recommended for discharge depending upon his/her progress. Recruits who are experiencing legal or medical problems may be placed on a legal or medical hold, evaluated, and either returned to training or discharged. At any point in the evaluation or separation procedure the recruit may be returned to training at the discretion of the boards, the Commanding Officer of the RTC, or the Commander of the Naval Training Center (NTC). Administrative details of separating the individual are handled at the NTC.

Each RTC is unique to some extent with regard to the separation process. The differences stem partly from location, but the RTCs also differ in the number and formality of review boards and in their entry testing procedures. These differences are discussed in some detail later in this report.

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TABLE 2. SEPARATION REASON CODES

		<u>CODE</u>	<u>NARRATIVE REASON</u>	<u>AUTHORITY</u>
A.	UNSUITABILITY	1. <u>Academic</u>		
		RAA	Below 3.0 grade reading level	BUPERS
		RAB	Remedial Reading Training failure	1.3420184.1e
		RAC	Test Failure (ART Graduate)	
		RAD	Test Failure (Reader)	
		2. <u>Military</u>		
		RMA	Non-adaptability	1.3420184.1e
		RMB	Lack of Motivation	2.3420184.1f
		RMC	Functionally Inadequate	3420184.1f
		3. <u>Non-Swim</u>		
		RMD	Non-Swim	3420184.1f
		4. <u>Psychological</u>		
		RPA	Situational Reactions	3420184.2
		RPB	Personality Disorders	3420184.2
B.	UNFITNESS	RUD	For Military Reasons	3420184.1f
C.	MISCONDUCT FOR FRAUDULENT ENLISTMENT	RCA	Drugs-prior service	3420185.1d/e
		RCB	Homosexual-prior service	3420185.1e
		RCC	Arrest Record-prior service	3420185.1e
		RCD	Previous service	3420185.1e
D.	MEDICAL	RDA	Orthopedic	BUPERSINST
		RDB	Podiatry	1910.26
		RDC	General Surgery	1910.2G
		RDD	Urology	
		RDE	Ophthalmology/optometry	
		RDF	Neurology	
		RDG	Dermatology	
		RDH	Internal Medicine	
		RDI	Ear, Nose, Throat	
		RDJ	Psychiatry	
		RDK	Other	
E.	CONVENIENCE OF GOVERNMENT	RGA	Erroneous Enlistment	3850220.1e
		RGB	Minority	3850260
		RGC	Death	5030420
		RGD	Pregnancy	3850220.2
		RGE	Enuresis	3850220.1m
		RGF	Sleepwalking	3850220.1m
F.	OTHER	RXA	Miscellaneous	
			Reasons not covered by above categories. List specific reasons for utilization of this code.	

SOURCE: CNETCHTRAINST 1900.2C  
 MONTHLY REPORT OF ATTRITION  
 7 AUGUST 1978

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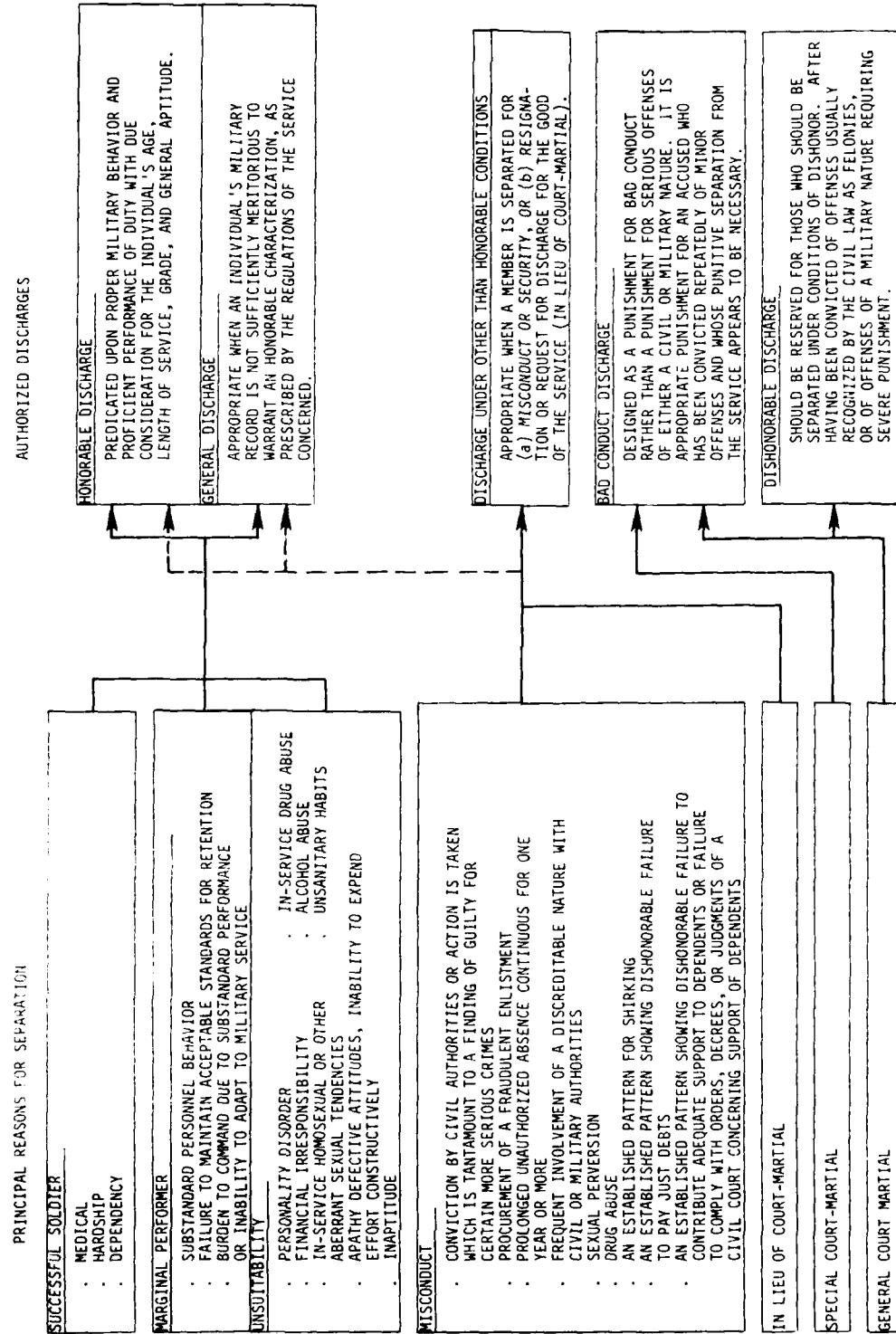


Figure 2. Relationship of Reasons for Separation to Type of Discharge Authorized

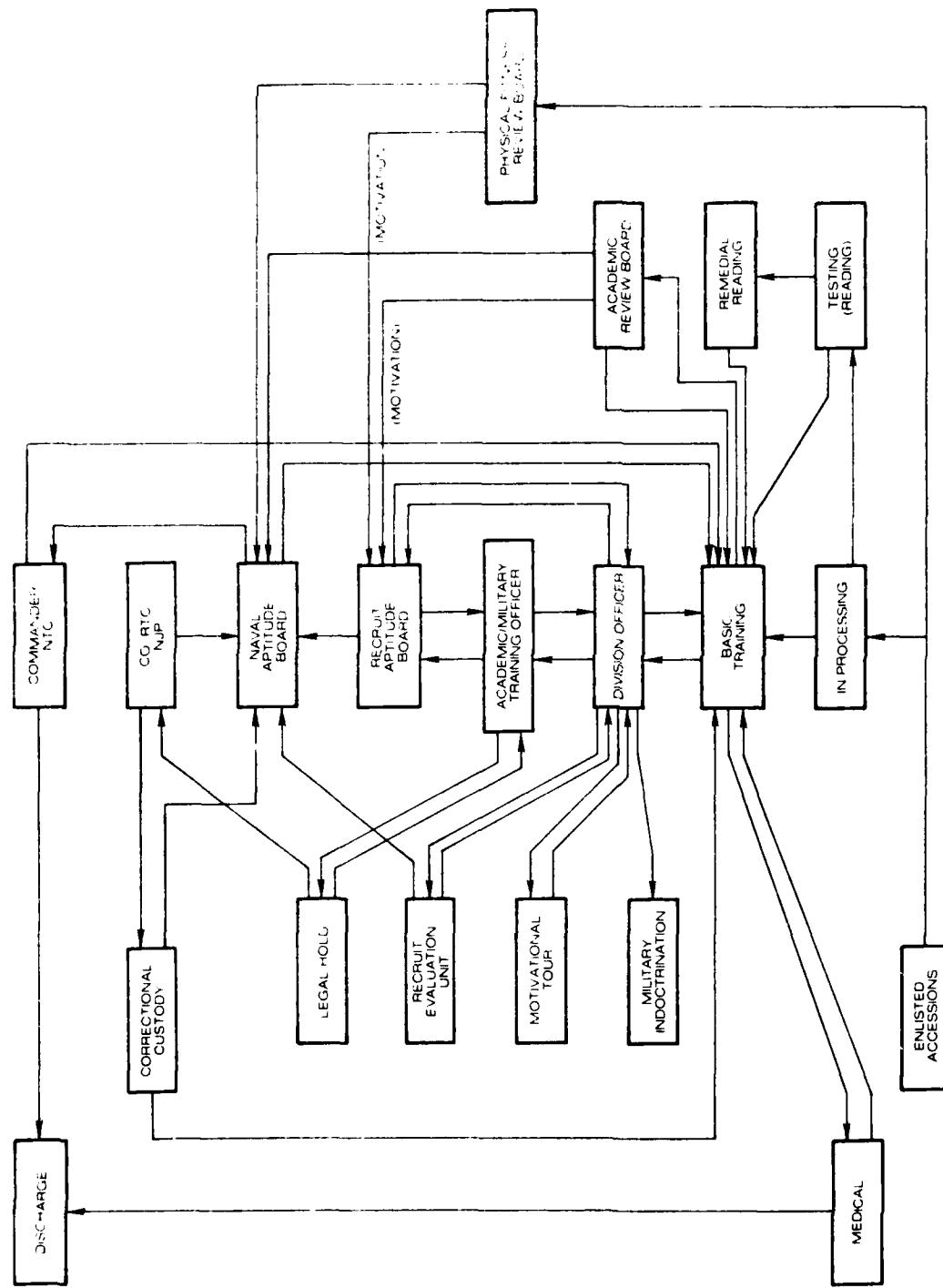


Figure 3. Composite Flow Chart (Three RTCs) Showing the Remediation/Separation/Administrative Flow of Problem Recruits

SECTION III

ANALYSES

This section contains analyses of attrition data from the RTCs at Orlando, San Diego, and Great Lakes for fiscal years 1978, 1979, and 1980.

Table 3 provides a summary of attrition from recruit training for fiscal years 1978, 1979, and 1980. These data are the basis for the other analyses contained in this section. The analyses were designed to identify trends in assignment of categories of separation at the RTCs and to examine in detail the significance of major differences.

An additional intent of the analyses was to determine the extent and practical significance of the differences across the three RTCs and within each RTC from one year to the next and to identify explanations for the observed differences. The analyses were designed to answer the following specific questions:

- Is the pattern of categories assigned significantly different across the three RTCs?
- Is there consistency in assigning categories within each RTC from one year to another?
- Are there any trends in the assignment of categories?
- Are the attrition categories independent?
- Can categories be grouped more meaningfully?
- What personal and organizational variables are related to categories assigned?

The data show that the patterns in reasons given for separation from the Naval services are very similar at the three recruit training sites. With few exceptions, the correlations between RTCs in percentages in each separation category exceeded .90 (table 4). Further, the data in table 5 indicate that the pattern of category assignment is remarkably consistent from year to year at individual RTCs. In this instance all correlations were above .90. The main conclusion to be drawn from these findings is that the percentage of individuals in each separation category is distributed in approximately the same way at the RTCs and across fiscal years. Even though the bar charts in figure 4 verify these similarities of pattern, they also suggest that some differences may exist between the RTCs in percentages found in certain separation categories. Additional analyses of the data confirmed there were indeed significant differences in certain categories. (See appendix B for Analysis of Variance tables.) In addition, the way that the RTCs use these categories also differs significantly. The latter finding is of particular interest because it implies nonstandard use of separation categories. Detailed examination of these effects showed that a negligible portion of the total variance (.5 percent) was accounted for by differences among sites. A major portion of the variance (72 percent) in the overall analysis was accounted for by differences in percentages found in each of the assignment categories. Comparisons (Scheffé Test) of mean percentages

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**TABLE 3. NAVY RECRUIT ATTRITION DATA FOR FISCAL YEARS 1978, 1979, AND 1980**  
 (Percent Based on Student Flow)

	ORLANDO						SAN DIEGO						GREAT LAKES						TOTAL							
	FY78		FY79		FY80		FY78		FY79		FY80		FY78		FY79		FY80		FY78		FY79		FY80			
	M	F**	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F		
A. Unsuitability	7.38	6.55	6.69	6.74	4.18	4.55	5.50	4.30	4.17	7.08	7.61	6.65	6.66	6.29	6.29	5.12										
1. Academic	.53	.05	.89	.13	.74	.12	.85	.80	.76	1.27	1.10	1.52	.86	.85	.85	.95										
2. Military	3.98	2.18	3.75	2.56	2.17	1.70	2.49	2.70	2.61	2.35	1.39	2.00	2.84	2.46	2.46	2.19										
3. Non-Swim	.48	.16	.12	.08	.02	.03	1.18	.08	.03	.21	.01	.00	.57													
4. Psychological	2.39	4.16	1.93	3.97	1.25	2.70	.97	.72	.77	3.25	5.12	3.13	2.40	2.90	2.90	1.97										
B. Unfitness	.00	.00	.00	.00	.01	.00	.18	.09	.14	.05	.09	.05	.05	.07	.07	.06	.06	.02								
C. Misconduct	.66	.10	.49	.29	.53	.17	1.34	1.98	.79	.24	.15	.21	.68	.81	.81	.45										
D. Medical	2.22	2.64	2.72	3.43	2.39	4.07	3.03	1.80	2.47	3.15	3.60	3.08	2.82	2.82	2.82	2.87										
E. Convenience of Government	.92	1.59	1.00	1.76	.87	1.80	.61	.65	.71	1.01	1.79	.99	.90	1.25	.98											
F. Other	.04	.02	.05	.04	.01	.02	.80	.68	.68	.45	.45	.22	.41	.39	.29											
OVERALL TOTAL	11.23	10.90	10.90	12.27	7.99	10.61	11.45	9.51	8.95	11.98	13.70	11.20	11.54	11.62	9.78											

\* M = Male

\*\* F = Female

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TABLE 4. CORRELATIONS BETWEEN ATTRITION CATEGORIES ACROSS THE THREE RTCs

<u>Location</u>		<u>Correlation*</u>	
	<u>FY 1978</u>	<u>FY 1979</u>	<u>FY 1980</u>
Orlando (M) vs Orlando (F)	.91	.92	.90
Orlando (F) vs San Diego (M)	.80	.75	.82
Orlando (F) vs Great Lakes (M)	.96	.97	.90
Great Lakes (M) vs San Diego (M)	.89	.65	.87
Orlando (M) vs San Diego (M)	.92	.91	.97
Orlando (M) vs Great Lakes (M)	.94	.84	.94

\* Pearson (r)

TABLE 5. CORRELATIONS WITHIN EACH RTC FOR FISCAL YEARS 1978, 1979, and 1980

<u>Location</u>	<u>Fiscal Year</u>	<u>Correlation*</u>
Great Lakes (M)	1978 vs. 1979	.96
	1978 vs. 1980	.99
	1979 vs. 1980	.96
San Diego (M)	1978 vs. 1979	.92
	1978 vs. 1980	.96
	1979 vs. 1980	.94
Orlando (M)	1978 vs. 1979	.99
	1978 vs. 1980	.95
	1979 vs. 1980	.98
Orlando (F)	1978 vs. 1979	.99
	1978 vs. 1980	.91
	1979 vs. 1980	.95

\* Pearson (r)

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in each category revealed that the mean percentages found in the Medical (2.88), Psychological (2.54), and Military (2.57) categories were significantly greater than those in other categories. However, these three categories did not differ significantly from each other. A significant portion of the variance (16 percent) was also accounted for by the training site by category of separation interaction. Although there were many differences that could be addressed, only two were of statistical significance. Both Great Lakes (3.87) and Orlando females (3.61) had higher percentages in the Psychological category than San Diego (.82), but they did not differ statistically from each other. No other mean differences reached statistical significance.

INDEPENDENCE OF ATTRITION CATEGORIES

The relative independence of attrition categories affects the validity of decision making. Some separation categories are more closely related than others and the information available to the Board may make it difficult at times to choose between categories. A rational analysis of independence of categories based upon observation and interviews with RTC personnel follows.

Academic codes--Below 3.0 Grade Reading Level (RAA); Remedial Reading Training Failure (RAB); Test Failure, ART Graduate (RAC); Test Failure, Reader (RAD)--are relatively independent; i.e., there should be little difficulty in determining whether an individual failed to meet academic testing criteria and also whether an individual was capable of reading at a level which should enable him/her to pass the academic tests (provided, of course, the predictor test is valid and the academic test is actually written at the level specified). Ambiguity may occur when an individual failing academic tests is given a "motivational tour" and subsequently is discharged for lack of motivation. Also, it might be difficult to say which comes first, the motivational or the academic problem.

Military codes--Non-Adaptability (RMA), Lack of Motivation (RMB), Functionally Inadequate (RMC)--probably cause the greatest difficulty for the NAB. RMA and RMB are closely related and are probably used interchangeably. The position of most Board members across RTCs is that few recruits are nonadaptable, and most can succeed if they want to; therefore, most recruits with military problems receive the RMB code as do many with academic problems. Code RMC is seldom used, but mainly applies to physically uncoordinated or awkward recruits. Conceivably, it could also apply to those who are functionally inadequate for mental reasons.

The Non-Swim code (RMD) should be independent but is often confused with lack of motivation; e.g., individuals who do not learn to swim after additional training may be discharged for motivational reasons. This may be a legitimate use of categories, for, in fact, the additional swim training may adversely affect the recruit's morale and performance in other areas.

The Psychological codes of Situational Reactions (RPA) and Personality Disorders (RPB) are assigned by the mental health specialist with concurrence of other Board members. The data indicate that these codes are not being used independently. For example, in FY 1978 and FY 1979 Great Lakes had no situational reactions for 9 months of the fiscal year; Orlando had a few. Practically all psychological discharges were categorized Personality Disorder. San Diego had

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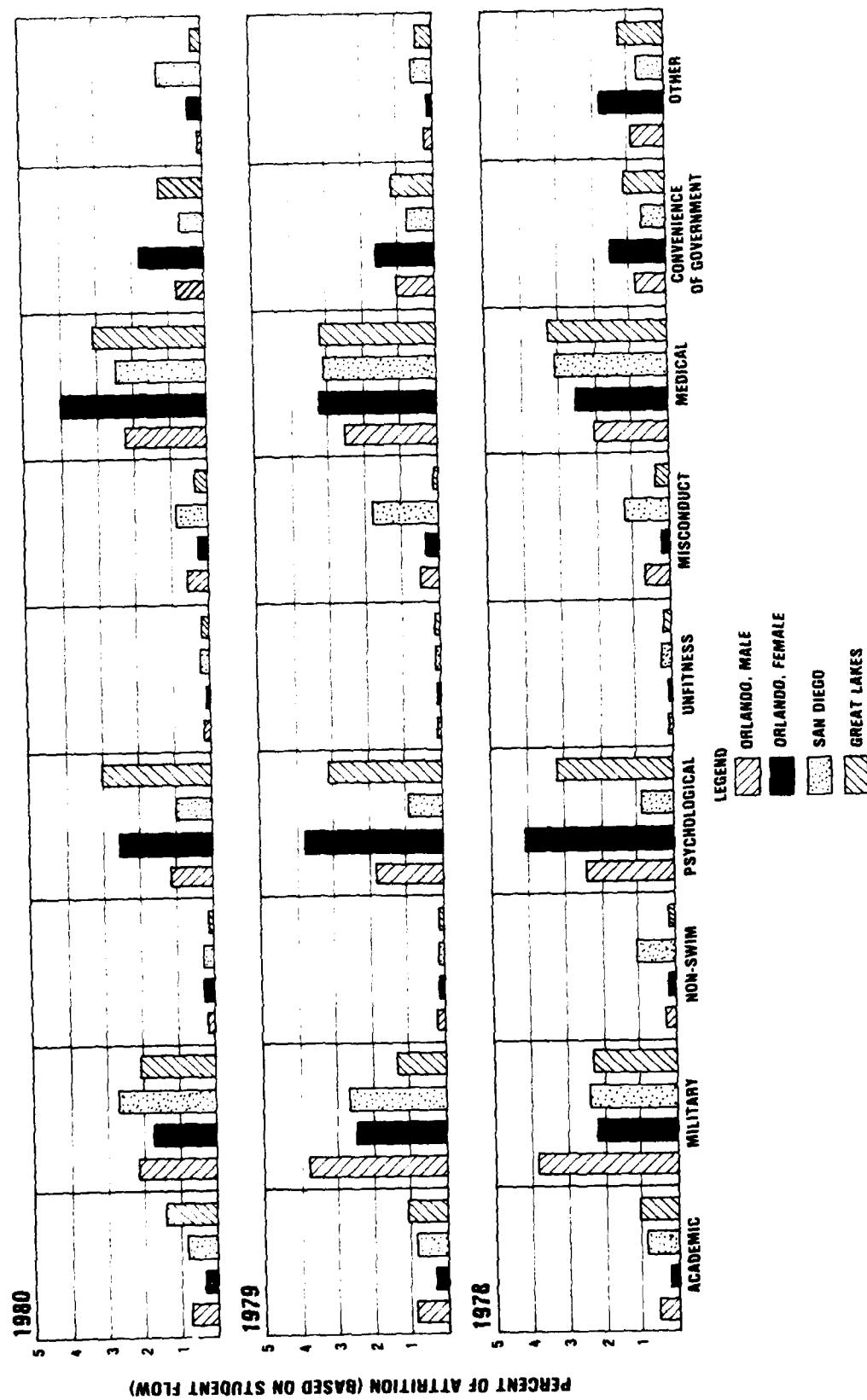


Figure 4. Percent of Attrition Across the Three RTCs for Major Attrition Categories for FY 1978, 1979, and 1980

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approximately the same percentage in the two categories for the same time period. For FY 1980, Great Lakes continued to place practically all attrites in the personality disorder category, San Diego maintained the same pattern of a nearly even split between categories, and Orlando started to discriminate between the two categories. Table C-1, appendix C, shows a comparison of these data. It is likely that many of the cases assigned to Personality Disorder are probably Situational Reaction. Decisions in this area should be given considerable care. An RPB code assignment has serious consequences for the recruit in a civilian or future military career and may even have legal consequences for both the recruit and the Navy.

Unfitness for Military Reasons (RUD) is rarely used. This is probably due to the restricted freedom of recruits in the RTC environment. Usually it is the result of such things as unauthorized leave charges, repeated social slurs, two or more Captain's Masts.

Misconduct for Fraudulent Enlistment codes--Drugs (RCA), Homosexual (RCB), Arrest Record (RCC), Previous Service (RCD)--are relatively independent. However, the category is often used for enuresis, somnambulism and even pregnancy if it is determined that the recruit concealed these conditions in order to be accepted into the Navy. From time to time the RTCs aggressively pursue fraudulent enlistment cases and in their zeal assign the category to cases which could have been discharged by Convenience of Government.

Medical codes--Orthopedic (RDA); Podiatry (RDB); General Surgery (RDC); Urology (RDD); Ophthalmology/Optometry (RDE); Neurology (RDF); Dermatology (RDG); Internal Medicine (RDH); Ear, Nose, Throat (RDI); Psychiatry (RDJ); and Other (RDK)--are relatively independent. These are assigned by the medical service and not by the NAB.

Convenience of Government codes--Erroneous Enlistment (RGA), Minority (RGB), Death (RGC), Pregnancy (RGD), Enuresis (RGE), Sleepwalking (RGF)--exhibit a high degree of independence. RGE and RGF may be used interchangeably with fraudulent enlistment or lack of motivation if it is determined that the recruit concealed information or is using the problem for an excuse to get out of the service.

Miscellaneous code RXA is used for discharge for verified severe personal or family problems, such as illness or death in the family or heavy debt, which would require a long absence by the recruit or cause an administrative burden to the command. This code allows considerable leeway for management in determining the cost effectiveness and humanitarian aspects of keeping an individual in the service.

#### PERSONAL AND ORGANIZATIONAL VARIABLES RELATED TO CATEGORY ASSIGNMENT

A number of personal and organizational variables which affect the assignment of separation codes were identified from interviews with involved personnel. Figure 5 illustrates some of the many factors which affect the accuracy of the coded reason assigned as the immediate cause for discharge. For the most part, these apply across all RTCs. A discussion of these follows.

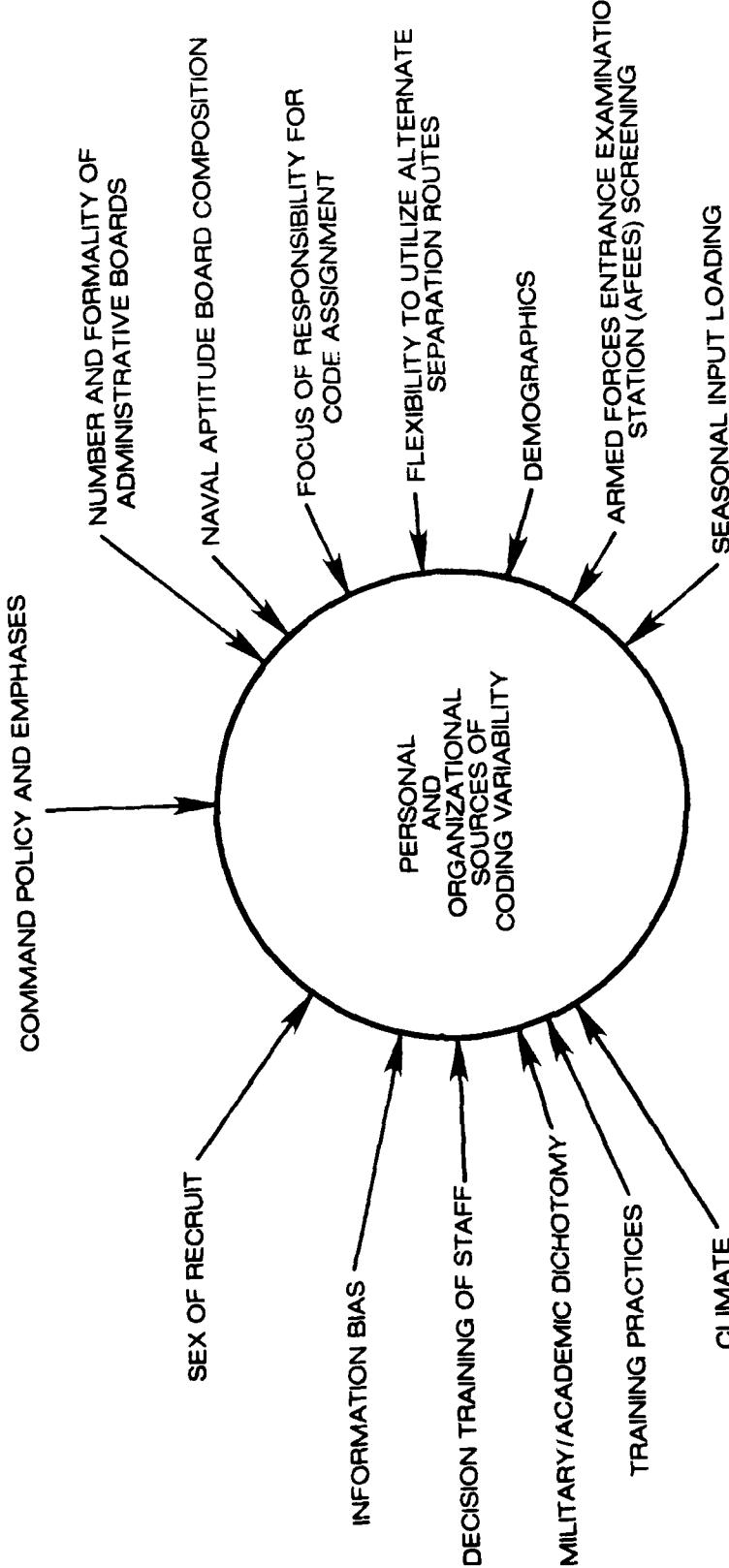


Figure 5. Factors Contributing to the Variability of Coded Reasons for Separation

COMMAND POLICY AND EMPHASES. Command policy reflects conditions at various levels in the Navy system and may contribute to the variability of reasons given for discharge. For instance, in the past it has been necessary from time to time to allow considerable leniency in releasing women (men also to a lesser degree) due to an inability to place them or promote them in a wide range of occupations. At other times, management may expect every effort on the part of the staff to retain personnel. Much of this may be due to the changing requirements for individuals with specific talents. Thus, the perception of command objectives interacts with the characteristics of recruits influencing the numbers and kinds of persons discharged.

Other command policy may also influence assignment of discharge codes. For example, management may be more lenient at certain times and discharge the recruit for medical or psychological reasons rather than for fraudulent enlistment. Management policy regarding attrition rates also affects code assignment. Within limits, emphasis on retention is probably inversely related to attrition. Such policies can be differentially applied as has been the case in the past with women and homosexuals.

Supporting command emphases also introduce variability into separation coding. Differential emphases on certain medical and psychological disorders at various times at the RTCs affect the assignment of reasons for discharge by modifying the content and emphasis of information being considered by the Board. This is not to say that the reason is not genuine, but the particular interests of the medical staff may, nevertheless, influence the number of discharges in particular categories. Specific programs reflect the interests of individual staff members at any particular time. Such emphasis may change as staff members rotate. At Orlando, for instance, the podiatrist in residence at one time studied the instances of stress fractures of the foot and found that females were more apt to suffer these injuries than males (Roy and Mew, 1979).

Another example is the recent emphasis on auditory testing. Heretofore, AFEES auditory testing was considered to be valid and unless some auditory trauma occurred, the recruit would complete basic training. Great Lakes has instituted a program whereby recruits' hearing is tested when reporting to the RTC and may, on the basis of the results, discharge recruits. It is pointed out that caution should be exercised in evaluating such discrepancies. Hearing is more variable from day to day than generally recognized (e.g., drugs, alcohol, or medication may affect the auditory threshold) and the audiogram may reflect a temporary condition. AFEES data may be valid for the point in time when the test is administered and yet the individual may be disqualified on subsequent testing.

The differences across RTCs in separations for psychological and medical reasons were analyzed separately. Procedures for identifying potential medical and psychological dropouts differ from one RTC to another. In addition to the routine review of medical records, RTC Great Lakes gives physical examinations to each recruit upon reporting, and RTC Orlando performs preliminary psychological screening of recruits.

Table 6 compares Medical and Psychological attrition figures across the three RTCs for FY 1978, FY 1979, and FY 1980. The data show that Great Lakes (male) has a somewhat higher number of separations for medical reasons than the

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other two RTCs (male). Why this is so cannot be determined from the data available. This could be due to factors other than the medical screening practice; e.g., climate. Assuming that the additional screening function has the purpose of screening out those who are unable to complete training, it would be expected that the number of separations for medical reasons would be higher at Great Lakes. However, depending upon remedial programs, separations would occur at different points in time and Great Lakes may have identified problem recruits earlier and may even have fewer attrites and obtained some cost savings. Available data do not identify just when medical separations occurred during the training cycle.

Medical attrition has remained fairly stable over the last three fiscal years. The primary reasons for discharge in this category are for conditions existing prior to service. Also included may be a number of individuals who show behavior problems, but for whom it is more convenient to use medical reasons for discharge purposes, and those cases which are difficult to diagnose precisely as medical or mental; e.g., enuresis, sleepwalking.

TABLE 6. COMPARISON OF MEDICAL/PSYCHOLOGICAL SEPARATIONS ACROSS RTCs\*

RTC	Medical Fiscal Year			Psychological Fiscal Year		
	1978	1979	1980	1978	1979	1980
Great Lakes	3.62	3.65	3.73	3.04	6.24	4.42 1st half
	2.72	3.56	3.08	3.45	4.19	3.13 2nd half
San Diego	3.64	2.03	1.97	1.08	.55	.95 1st half
	2.42	1.58	2.47	.87	.89	.77 2nd half
Orlando Males	1.98	3.03	2.20	2.50	1.94	1.38 1st half
	2.49	2.42	2.39	2.27	1.92	1.25 2nd half
Orlando Females	2.04	2.75	3.25	4.80	4.06	2.67 1st half
	3.11	4.01	4.07	3.64	3.89	2.70 2nd half

\* Percent, based on student flow.

For psychological separations, assuming the figures should be equivalent across RTCs (that is, in the general population, psychological problems would be the same for each location), one would expect Orlando (because of preliminary psychological screening procedures) to identify problems earlier in the training cycle and obtain cost savings. As with medical discharges, the existing data are not in sufficient detail to determine where in the training cycle the discharge occurred. Again, Great Lakes, not Orlando (as would be expected),

has the highest number of discharges for psychological reasons. This is so even when taking into account the fact that Orlando is the only RTC training female recruits and psychological discharges are generally higher for females (Schuckit and Gunderson, 1974). At Orlando, more women are separated for psychological reasons than are men. This can, in part, be explained by the way in which the sexes handle stress. Women tend to become emotionally disturbed, crying, etc., while men tend to act out with aggression and are more apt to be discharged for disciplinary reasons. Although potential failures may be identified by psychological screening, the relationship between the psychological categories and eventual discharge reason is unclear. In each instance, discharge is based upon inability to satisfactorily complete recruit training.

NUMBER AND FORMALITY OF ADMINISTRATIVE BOARDS. The use of formal board procedures in the decisions prior to the NAB may affect the quality of separation coding decisions. The procedure for processing recruits who have academic, physical fitness, or military problems differs from one RTC to another. A formal, standardized system for referring recruits from one training program to another is essential to creating a proper military atmosphere in which the recruit can comprehend the seriousness of the situation and board members are made to fully appreciate the consequences of their decisions.

NAVAL APTITUDE BOARD COMPOSITION. The rank, sex, experience, training, and mobility of board members are all factors contributing to the quality of Board decisions. Some officers assigned to the Board have had little or no experience with the unique recruit training environment. Also, in many cases, members are just becoming proficient in the duty when they are transferred. Training for Board duty has not been formalized and is, for the most part, obtained by experience after assignment to the Board. There are women on the Board in some cases. However, Orlando, the only RTC training women, should have a woman officer assigned permanently.

FOCUS OF RESPONSIBILITY FOR CODE ASSIGNMENT. The rank and billet having responsibility for assigning the separation code differs from one RTC to another and may differ from one time to another. In one case the code is assigned by the senior Board member following consensus of Board members at the time the decision is made. In another, a yeoman may assign the code based upon written information and observation of Board action. At another, codes are assigned by the Military Training Officer prior to the NAB meeting based upon written information. These individuals differ in their amount and kind of experience, training, and opinions. It is likely that these factors affect the accuracy of decisions. The assignment of responsibility to one particular staff position may make for greater accuracy and reliability.

FLEXIBILITY TO UTILIZE ALTERNATE SEPARATION ROUTES. Differences in the assignment of separation codes may also result from (1) unsatisfactory attempts on the part of staff members to effect discharges via a particular route or (2) the perceived need for expedience. For instance, an individual may be discharged for fraudulent enlistment, physical or psychological problems, or via legal channels for the same problem. Enuresis (bedwetting) and somnambulism (sleep-walking) are examples. If it is determined that the recruit deliberately hid the condition, s/he may be classified as a fraudulent enlistment. If a recruit is thought to be faking the condition s/he may be discharged

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for motivational or adaptability reasons. If a recruit's ailment is genuine and existed prior to entry into service, but there appears to be a genuine desire on his/her part to succeed in the Navy, s/he may be discharged via medical channels. In another case, the condition may have been induced by the stress of recruit training and determined to be psychological. Even for the inability to pass the swim qualification, the recruit may be discharged for lack of motivation rather than a non-swim, if it is determined that s/he did not make a satisfactory effort to learn.

Occasionally, situations arise where it is more practical to use one discharge process over another. For example, the recruit may be needed at home, but the usual administrative procedure would prolong the time away from home causing undue hardship to the individual and increased cost to the Navy. In such cases, management may seek the most simplistic method of discharge, considering this to be in the best interest of the individual and the Navy.

DEMOGRAPHICS. The demographic characteristics of entering recruits may differ from one RTC to another. This may be related to the use of various discharge codes. There are geographical areas where recruiting is difficult or where the characteristics of the population available for recruiting are unevenly distributed. A differential pool of talents across recruiting resources should be considered in any investigation of causes for attrition (Hodges, 1979). It is reasonable to expect that RTC San Diego will have a large input of Spanish speaking recruits while RTC Great Lakes will have a large number of inner city individuals and RTC Orlando will have recruits from the urban south. The types of problems exhibited by these individuals may be different in nature and result in differential use of reasons for separation at the RTCs.

ARMED FORCES ENTRANCE AND EXAMINATION STATION (AFEES) SCREENING. A source of variability in coding may result from the screening examinations by the AFEES. There may be some correlation between the nature/scope of the examination and attrition from training. At the RTC level, efforts have been initiated to compensate for perceived AFEES deficiencies. For example, RTC Great Lakes conducts physical examinations for entering recruits, and RTC Orlando has initiated psychological screening.

SEASONAL INPUT LOADING. The number and quality of recruits entering training may differ depending upon the time of year they enlist. The peak period for enlistment is following high school graduation. These enlistees are probably more representative of the total population than those who enlist later in the year after having tried to succeed in civilian jobs or follow-on schools. At the RTCs, the staff-to-trainee ratio during peak periods may make it difficult to devote time to individual problems. This may result in higher attrition rates and discharge decisions based upon limited information. Peak loading of input affects variability of separation coding through (1) inability of a busy staff to recognize and remediate various types of problems in a timely manner, (2) lack of thoroughness of physical examinations at the AFEES, (3) increased perception of impersonality on the part of the recruit, and (4) reduced effectiveness of the discharge procedure.

CLIMATE. Seasonal conditions may also contribute to certain types of discharge frequency. Great Lakes reports more physical and mental health problems

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during severe winter months. Other weather conditions including air pollution may also contribute to differences in types of discharge across the three RTCs.

TRAINING PRACTICES. The conduct of training differs from one RTC to another and over time. For example, inspection procedures may vary. In the case of clothing, folded clothing may be inspected as is, or the inspection team may demand to inspect the process of folding clothes. If one RTC has different procedures, this could differentially affect the numbers of recruits discharged under a particular category. For example, a recruit may attrite for inability to perform particular tasks or the motivation of recruits may differ as a function of how the procedure is carried out, hence increasing the number of discharges for military reasons. Also, as the time for any function is increased, the pressure increases for accomplishing other tasks in the remaining time allotment resulting in additional stress for the recruit and the Company Commander. These kinds of operations affect academic and motivational attrition by interacting, making it difficult to determine the true category into which the attritee should be placed.

MILITARY/ACADEMIC DICHOTOMY. The perception of staff members regarding the importance of military as opposed to academic training may be a factor in variability of separation coding. Emphases may differ across RTCs from one time to another. Under the competitive system, Company Commanders consider their performance marks to depend primarily upon how well the training unit performs military functions. The unit's academic success is often seen as the responsibility of the classroom instructor. Consequently, it may be difficult for the slow learner to complete Recruit Training if undue emphasis is placed on the military aspects of the program. Some interview data suggested that Company Commanders may even encourage slow learners to attrite in order to improve the performance of the company as a whole.

DECISION TRAINING OF STAFF. The amount and kind of training given to the RTC staff as a whole may affect the accuracy of decisions. Staff members are required to make decisions regarding the need for remedial training. The staff member's ability to identify and apply the proper training differentially affects discharge decisions. Additionally, the training given Board members for that specific duty is a factor related to coding reliability or validity. Presently, no formal training is being offered which specifically relates to improving the quality and accuracy of separation decisions throughout the training pipeline.

INFORMATION BIAS. The final decision to discharge is the culmination of a series of decisions by a number of individuals. It is likely that decisions made earlier in the processing bias later decisions. This has been demonstrated in other decision making frameworks. However, procedures can be developed to minimize the effect of such biasing information, for example, decision-making training.

SEX OF RECRUIT. Variability in coded reasons for discharge can be expected depending upon the sex of the individual. Sex appears to have a significant impact in terms of separation code use, particularly on medical and psychological codes. For example, an unpublished study conducted by Roy and Mew (1979) showed that female recruits were more prone to orthopedic and podiatry problems than males. Women appear to have more medical problems than men and are more apt

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to be discharged for psychological reasons than men. It is likely that because females react emotionally to stress with tears or break downs they are more apt to be separated for psychological reasons. Males, on the other hand, are more apt to react to stress by becoming discipline problems and, hence, are separated for disciplinary reasons.

SECTION IV

DISCUSSION

The separation data apparently reflect the innate characteristics of the population from which recruits are drawn. Therefore, one should expect frequencies in separation categories to vary just as in any actuarial table based on a specific population. However, the observed use of separation categories at the RTCs suggests significant differences in philosophy, policy, procedures, and personnel practices. This section addresses these differences and their impact on separation coding categories. The independence and grouping of separation categories are also discussed.

In summary, the data for each RTC from one year to the next showed a high degree of reliability (correlations exceeded .90) in the frequency of individuals assigned to the various separation codes. Even though consistent, this data does not necessarily mean the decisions are valid. Also, pattern analyses showed a high degree of consistency at individual RTCs (correlations between percentages exceeded .90). In other words, the percentages of individuals found in each category are distributed in approximately the same way at individual RTCs over the three fiscal years (1978, 1979, and 1980). The data suggested some differences between RTCs in the percentages found in certain separation categories. Additional analyses of the data confirmed that there were indeed significant differences. Percentages found in the medical, psychological, and military categories were significantly greater than those in other categories. However, these three categories did not differ significantly from each other. In addition, the way that RTCs use the categories differs significantly. The analysis of the interaction of training site by category showed that both Great Lakes and Orlando (females) had significantly higher percentages in the psychological category than San Diego. This implies a nonstandard use of separation categories.

The significant differences in coding appear to be more related to organizational policies and practices than to deficiencies in the established definitions or numbers and grouping of separation code categories. The typical categories used for administrative separation policies; e.g., convenience of the government, unsuitability, or misconduct, tend to oversimplify an extremely complex set of personnel policies. However, when these are summarized for purposes of clarification as was done by Foch and King (1977), the problem facing separation boards is easier to understand. Foch and King categorized all separations as follows:

- Clearly unavoidable separations; i.e., beyond the control of the Navy and for which the Navy has no recourse other than separation--death, security, disability (physical and mental), and fraudulent enlistments.
- Separations due to reasons for which the Navy member may separate at his/her option; e.g., pregnancy, hardship.
- Separations because of member characteristics, behaviors, or performance which the Navy finds unacceptable; i.e., the member commits acts which indicate that s/he cannot be a productive member. This includes a wide range of separation policies from marginal performance to misconduct separations.

Separations falling in the first two of these categories are fairly clear-cut. Occasionally, some questions arise as to how a case should be processed, but the problem is not extensive. The difficulty occurs in the third category where judgments must be made by the NAB and where the immediate causes are not easily identified. The coded reason assigned by the NAB for separation of an individual is usually an oversimplification of a complex set of events. Often by the time the member appears before the Board, it is difficult to trace the components of the adjustment problem due to an additive effect of circumstances. Nevertheless, individuals separated for reasons falling within the purview of the NAB are those offering the greatest potential for retention since they may be the most amenable to ameliorative programs. A major factor in early identification of such individuals is the establishment of review boards at appropriate points in the pipeline, and the staffing of these boards with individuals experienced and trained in decision making as related to the individual's particular problem; e.g., academic/motivational. Figure 3, the composite flow chart for the three RTCs (page 12), shows that in some cases such boards are in existence. The establishment of formal academic, physical fitness, military aptitude boards which are standardized across all RTCs would greatly assist in timely identification of recruit difficulties.

The NAB is the key to effective and fair separation procedures. The following guidelines are offered to improve the decisions made by these boards:

- assign members to the NAB who have had prior experience in making similar decisions. Retain these individuals on the Board as long as possible
- provide training in decision-making techniques for Board members not having such experience
- provide indoctrination training to Board members on problems unique to Recruit Training if they have not had such previous experience
- conduct review boards and NABs in a formal, military manner to create a proper impression on the recruit and impress Board members with the consequences of their decisions
- emphasize asking probing questions during conduct of Boards and apply findings to improve future training decisions
- assign responsibility for code assignment to the senior NAB members. Assure that code is assigned only after Board consensus is reached
- develop symptom charts (figure 6) for each separation category for use by the NAB. (The sample chart is the result of a questionnaire administered to Company Commanders and is not intended to be an exhaustive list of symptoms.)

As indicated earlier, the screening of recruits is a contributing factor in overall attrition and is reflected in the numbers of recruits attrited under certain specific categories. The issue involves the degree, scope, and even the validity of the AFEES screening procedure. To thoroughly examine the

CODE RMA - UNSUITABILITY, NONADAPTABILITY

If a recruit exhibits one or more of the following symptoms, he is probably a candidate for separation under the RMA category.

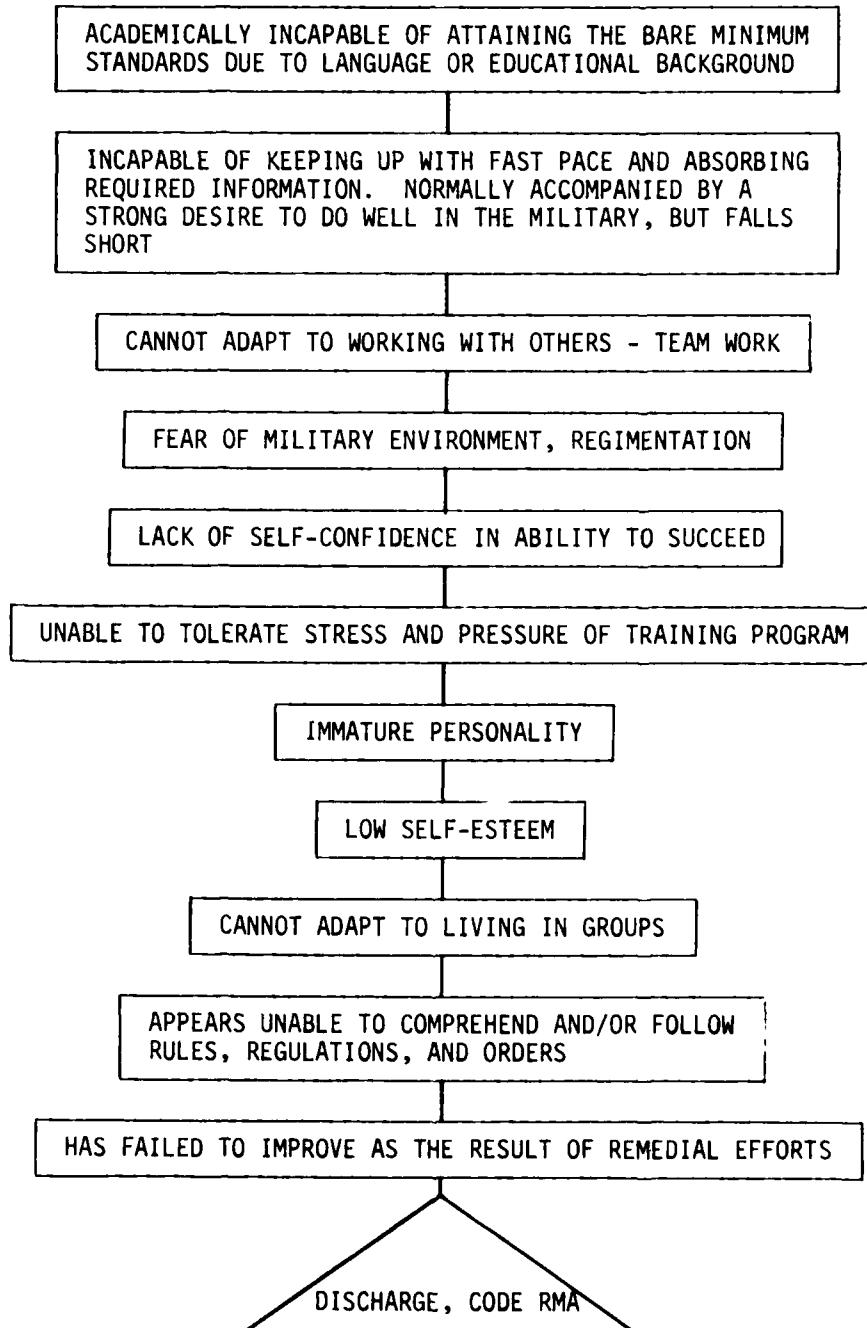


Figure 6. Sample Symptom Chart for Use in Improving Quality of Naval Aptitude Board Judgments

issue would require that attrition case data be kept over a period of time to determine when in the training cycle designated individuals are attrited and subsequently the appropriate type, time, and location of screening procedures to ensure timely identification of recruits with difficulties.

There is considerable controversy surrounding the issue of screening at the recruit training level. The screening function at the AFEES is perceived by many as inadequate. Both RTC Orlando and RTC Great Lakes conduct some medical or psychological screening of recruits upon entry. Many people interviewed are of the opinion that the AFEES should be more stringent, hence, relieving the RTC of the necessity to perform this function. Other individuals directly involved in the screening procedure at the RTCs are convinced that it is both necessary and effective to conduct additional screening at that level.

In order to keep force strength at desired levels, and to control costs, the military has continuously pursued means to identify attrition-prone individuals. The object is to screen out at the entrance stages those least likely to remain in the service. Unfortunately, those prediction devices have not proven to be particularly effective.

While Great Lakes and Orlando have instituted screening procedures in addition to those conducted by the AFEES, there is evidence that rescreening makes only a slight improvement in prediction accuracy. In an exhaustive study of predictor tests for Marine recruits, Astin (1976) made the following observation:

Using all the best predictor variables from this study as admission criteria would make possible only a moderate improvement in predictive accuracy. Thus, a substantial proportion of the most dropout-prone students admitted would complete their program and a small but significant number of the least dropout-prone students would not finish theirs. In short, institutions can be more flexible in their selective admissions without fear that dropout rates will be unduly influenced.

Perhaps the RTC should compile data to determine the cost advantages of rescreening at the RTCs. It may be that some enlargement of scope at the AFEES would be more cost effective. The consistency in numbers of attrites over the years points to the likelihood that the Navy will continue to lose approximately 10 percent of its new accessions in Recruit Training. The reasons for the loss will vary from one time to another and from one RTC location to another dependent upon both personal and organizational variables. Over the past three fiscal years, attrition has ranged from 7.99 to 13.70 with a mean of 10.84. One might expect that remedial efforts could salvage approximately 3 percent (the difference between the mean and 13.70) of those who are attriting.

Researchers have attempted to identify more precisely the reasons why many individuals fail to succeed in the military environment. Mobley, Hand, and Logan (1977), in an attempt to identify the "true" reasons for recruit attrition found the following variables to be associated with actual Recruit Training attrition: education ( $r = -.17$ ), AFQT Mental ( $r = -.05$ ), expectancy of completing obligated service ( $r = -.19$ ), role attraction ( $r = -.11$ ), internal motivation ( $r = -.09$ ). The self-reported reasons with the highest rating were: missed

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family/friends, lack of personal freedom, too much pressure, health reasons, rules and regulations too rigid, unfairly treated by superiors.

The data obtained during this investigation, point strongly to motivation as a major factor in recruit attrition. Managers may obtain some payoff by concentrating effort on retention programs dealing with motivational problems. Effort might also be directed toward identifying medical problems which are directly related to the training program (e.g., orthopedic and podiatry) early enough for remediation and/or early discharge. Effort directed toward clear policy for separation for psychological disorders might also result in some benefit in the retention of personnel.

The present structure of the Separation Subsystem of Recruit Training appears adequate to meet the needs of the Navy. Based upon the data gathered in this study (including interviews with attrition data recipients), there appears to be no requirement for major change. While there are 32 categories (and one for other than those specifically designated), a reduction in the number of categories would not provide sufficient discrimination. Also, any minor changes would probably not be worth the additional expense and effort involved.

The data analyses indicate a remarkable degree of consistency in the assignment of categories across years and RTCs, considering the significant number of variables which enter into the decisions. Basically, what is needed to improve the quality of Board decisions is standardization of the numbers and kinds of review boards across the three RTCs, a tightening of procedures, an awareness of the importance of decisions made at every level, job aids (such as symptom charts) for use by the Boards at the point in time when the final decision is made, and the inclusion of a training block in Company Commander and enlisted and officer staff training curricula related to the separation procedure. Attention to the consequences of policy changes as they relate to separation categories would also impact favorably on the accuracy and comparability of separation decisions.

SECTION V  
RECOMMENDATIONS

The major finding of this study is that the Separation Subsystem of Recruit Training, as presently structured, appears adequate to meet the needs of the Navy with regard to the management and control of attrition. The significant differences in percentages of attrites appear to be the result of differences in the implementation of policies and procedures at the RTCs.

The following recommendations are offered to improve the quality of Board decisions and accuracy of separation coding:

- establish formal academic, physical fitness, and military review boards at each RTC
- standardize procedures, structure, and policies for each review board and the NAB across all RTCs
- institutionalize monitoring procedure to ascertain that Boards are conducted in accordance with Navy policy and to assure that individuals who must be attrited are returned to civilian life through an orderly and dignified process
- when practical select individuals for Board duty who have had experience with the unique aspects of Recruit Training
- give responsibility and accountability for assignment of separation codes to the senior NAB member; that member to assign the separation code following consensus of Board members
- keep rotation of Board members to a minimum
- assign a woman to the review boards and NAB at RTC Orlando where female recruits are trained
- develop a training module on the separation process for inclusion in the curricula for Company Commander, petty officer, and officer orientation to Recruit Training. The module would familiarize staff with composition of Boards, steps in the separation procedure, separation codes, and rights of the recruit. The criticality of each step in the procedure and the consequences of each decision for the recruit and the Navy would be emphasized.
- develop training/job aids similar to the symptom chart discussed in section IV. This would establish more definitive criteria to insure equitable decisions; hence providing managers with a more accurate picture of attrition causes
- obtain/develop data on the effectiveness of medical and psychological rescreening at the RTCs
- standardize policy related to the discharge of recruits for psychological reasons across the RTCs.

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BIBLIOGRAPHY

Astin, A. W. Preventing Students from Dropping Out. San Francisco, CA.: Jossey-Bass Publishing. 1976.

Copeland, D. R., Henry, J. M., Mew, Dorothy V., and Cordell, C. C. Navy Recruit Training Optimization, Post-1980, Phase I: Current Assessment and Concept for the Future. TAEG Report No. 34, May 1976. Training Analysis and Evaluation Group, Orlando, FL 32813 (AD026528).

Copeland, D. R., Henry, J. M., and Mew, Dorothy V. Navy Recruit Training Optimization, Post-1980: Training System Design and a Plan for Implementation. TAEG Report No. 67, December 1978. Training Analysis and Evaluation Group, Orlando, FL 32813 (ADA068473).

Defense Manpower Commission. Defense Manpower: The Keystone of National Security. April 1976. Government Printing Office, Washington, DC, p. 201.

Dempsey, J. R., Fast, J. C., and Sellman, W. S. "A Method to Simultaneously Reduce Involuntary Discharge and Increase the Available Manpower Pool." In First Term Enlisted Attrition, Volume I: Papers. June 1977. Office of Naval Research, Arlington, VA 22217.

Foch, C. and King, Nikki. "The Gatekeepers: First-Term Enlisted Attrition Policies and Practices." In First Term Enlisted Attrition, Volume I: Papers. June 1977. Office of Naval Research, Arlington, VA 22217.

Guthrie, R. V. "Navy Voluntary Release Pilot Program." In First Term Enlisted Attrition, Volume I: Papers. June 1977. Office of Naval Research, Arlington, VA 22217.

Hays, W. L. Statistics for Psychologists. New York: Holt, Rinehart, and Winston. 1965.

Hodges, C. I. Post Enlistment Mental Quality Verification: The First Year of Retesting. Navy Personnel Research and Development Center, San Diego, CA. NPRDC SR 79-19. May 1979.

Jenkins, L. E. "Minimizing Attrition Problems and Attrition Rates of Minority Military First-Term Enlisted Men." In First Term Enlisted Attrition, Volume I: Papers, June 1977. Office of Naval Research, Arlington, VA 22217.

Middleton, M. G., Rankin, W. C., Green, E. K., and Papetti, C. J. Academic Attrition from Navy Technical Training Class "A" School Courses. TAEG Report No. 47, July 1977. Training Analysis and Evaluation Group, Orlando, FL.

TAEG Report No. 100

BIBLIOGRAPHY (continued)

Mobley, W. H., Hand, H. H., and Logan, J. E. "A Longitudinal Study of Enlisted Personnel Attrition in the U.S. Marine Corps: Preliminary Recruit Training Results." In First Term Enlisted Attrition, Volume I: Papers. June 1977. Office of Naval Research, Arlington, VA 22217.

Mobley, W. H., Youngblood, S. A., Meglino, B. M., and Moore, Dorothy P. An Analysis of Female Marine Recruit Attrition. TR-12, February 1980. Center for Management and Organizational Research, College of Business Administration, University of South Carolina, Columbia, SC 29208. Prepared under Navy Manpower R&D Program of the Office of Naval Research under Contract N000-14-76-C-0938.

Multi-Location Audit of Attrition of Naval Personnel. Audit Report T20069. 3 October 1979. Naval Audit Service Northeast Region, Central Camden Parkade Building, Suite 215, 30 North Fifth Street, Camden, NJ 08102.

Roy, R. and Mew, Dorothy V. Stress Fractures of the Foot in Navy Recruits. Unpublished Report. 1979. Recruit Training Center, Orlando, FL

Schuckit, M. A. and Gunderson, E. K. Psychiatric Incidence Rates for Navy Women: Implications for an All Volunteer Force. Report No. 72-48. July 1974. Navy Medical Neuropsychiatric Research Unit. San Diego, CA

Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw-Hill Book Company. 1971.

Youngblood, S. A., Laughlin, J. E., Mobley, W. H. and Meglino, B. M. A Longitudinal Analysis of Military Recruit Attrition: The First 25 Months. Center for Management and Organizational Research, College of Business Administration, University of South Carolina, Columbia, SC 29208. February 1980. Prepared under Navy Manpower R&D Program of the Office of Naval Research under Contract N000-14-76-C-0938.

NAVY PUBLICATIONS

A Guide for REU Staffs of Recruit Training Commands. Neuropsychiatry Branch, Professional Division, Bureau of Medicine and Surgery, Department of the Navy. 1968.

NAVPERS INSTRUCTION 1579.1B, ART 3420184. Bureau of Naval Personnel, Washington, DC. 1 July 1969.

BUMED INSTRUCTION 1910.1C. Aptitude Boards. Guidelines for Disposition Regarding Administrative Procedures for Processing Recruits Appearing Before Aptitude Boards. 1 June 1967.

BUMED INSTRUCTION 1910.2G. Disposition of Enlisted Members by Medical Board Action by Reason of Physical Disability, Military Unsuitability, and Enlisted in Error. 26 August 1975.

TAEG Report No. 100

BUMED INSTRUCTION 1910.3B. Disposition of Enlisted Members by Reason of Unsuitability Due to Personality Disorders and Disorders of Intelligence. 24 August 1976.

BUPERS INSTRUCTION 1010.28. Aptitude Board Procedures. 14 March 1978.

BUPERS MANUAL 3420187, BUMED INSTRUCTIONS 1910 Series and SECNAV INSTRUCTIONS 1900 Series.

BUPERS NOTICE 1910. Policy and Procedure Relative to Cases Involving Duly Diagnosed Character Disorders.

CNTECHTRA INSTRUCTION 1540.42A. Academic Remedial Training (ART). 12 March 1980.

CNTECHTRA INSTRUCTION 1900.2C. Monthly Report of Recruit Attrition.  
(1) Procedures for Preparation. (2) Categories of Release. 7 August 1978.

CNTECHTRA INSTRUCTION 1910.3. Aptitude Boards, Procedures for the Conduct of Aptitude Boards. 16 May 1978.

DEPOT ORDER L910.10C. U.S. Marine Corps. 18 January 1979.

NAVCRUITRACOM INSTRUCTION 1236.2J. Recruit Academic Testing; Administration of. 2 October 1979.

NAVCRUITRACOM INSTRUCTION 1414.1J. Basic Swimming Qualification/Survival at Sea Techniques. 20 September 1979.

NAVCRUITRACOM INSTRUCTION 1510.3I. Recruit Academic Achievement Testing Program. 25 January 1979.

NAVCRUITRACOM INSTRUCTION 1616.3G. Procedures for Disposition of Recruits Who Have Exhibited Marginal or Unsatisfactory Performance. 28 February 1980.

NAVCRUITRACOM INSTRUCTION 1900.1B. Procedures for Processing and Counseling Individuals Who Have Fraudulently Enlisted in the U.S. Navy. 15 November 1977.

NAVCRUITRACOM INSTRUCTION 5420.2B. Administrative Discharge Board, Duties; Assignment to. 24 March 1980.

NAVCRUITRACOM INSTRUCTION 5420.5A. Recruit Training Command Military Aptitude Board; Procedures for. 22 June 1976.

NTC ORL INSTRUCTION 1910.3. Recruit Aptitude Board. 31 January 1979.

SECNAV INSTRUCTION 1850.4. Disability Evaluation Manual, Naval Council of Personnel Boards. Arlington, VA 22203. 23 June 1977.

TAEG Report No. 100

BIBLIOGRAPHY (continued)

SECNAV INSTRUCTION 1900.9C. Policy for Members of the Naval Service Involved in Homosexual Conduct. 20 January 1978.

SECNAV INSTRUCTION 5420.174A. Department of the Navy. Manual for Discharge Review. 30 March 1977. Naval Council of Personnel Boards. Arlington, VA 22203.

APPENDIX A

EXCERPTS FROM AUDIT REPORT T20069

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Excerpt from

AUDIT REPORT T20069

MULTI-LOCATION AUDIT OF  
ATTRITION OF NAVAL PERSONNEL

3 OCTOBER 1979

NAVAL AUDIT SERVICE NORTHEAST REGION

Improving classification of recruit attrition

a. Wide differences in attrition classification among NAVCRUITRACOMs should be reviewed to determine accuracy and need for improvement. Based on FY 1978 attrition data, the three NAVCRUITRACOMs had comparable overall attrition rates of approximately 12 percent. However, classification of attrition by category (reason for attrition) shows large variances. Proper classification of attrites is essential to enable management to evaluate attrition, identify corrective actions required, and apply resources effectively.

b. CNTECHTRA compiles and evaluates data on the various reasons why recruits do not complete training. To accomplish this, NAVCRUITRACOMs prepare a Monthly Report of Recruit Attrition (CNTECHTRA Report 1900-1) in accordance with CNTECHTRA Instruction 1900.2C. This report classifies attrition into six major categories: unsuitability, unfitness, misconduct, medical, convenience of government, and other. These six categories are further identified to 33 sub-categories reflecting specific reasons for attrition. NAVCRUITRACOMs forward the monthly reports to CNTECHTRA with copies to CNO, CNET, BUMED, and COMNAVCRUITCOM. Enclosure (1), para. 3, of the CNTECHTRA Instruction states that every effort should be made to assign the proper attrition code/reason to each recruit who fails to complete training.

c. Review of FY 1978 recruit attrition data disclosed that NAVCRUITRACOMs have comparable overall attrition rates; Great Lakes 11.98 percent, Orlando 11.22 percent, and San Diego 11.45 percent. However, when looking at the classification of attrition by category the similarity disappears. We compared attrition by category as reported by each NAVCRUITRACOM and found significant variances. For example, unsuitability ranged from a low of 48 percent at San Diego to a high of 66 percent at Orlando, and misconduct ranged from 2 percent at Great Lakes to 12 percent at San Diego. A breakdown of FY 1978 attrition categories by NAVCRUITRACOM follows:

Percentage of attrition (males only)

<u>Category</u>	<u>Great Lakes</u>	<u>San Diego</u>	<u>Orlando</u>	<u>Average</u>
Unsuitability	59.1	48.0	65.7	57.5
Unfitness	.4	1.5	0	.7
Misconduct	2.0	11.7	5.9	6.2
Medical	26.3	26.5	19.8	24.4
Convenience	8.4	5.3	8.2	7.4
Other	<u>3.8</u>	<u>7.0</u>	<u>4</u>	<u>3.8</u>
Totals	<u>100</u>	<u>100</u>	<u>100</u>	<u>100</u>

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	<u>Percentage of attrition (males only) (con't)</u>			
	<u>Great Lakes</u>	<u>San Diego</u>	<u>Orlando</u>	<u>Average</u>
Total attrites	<u>3,678</u>	<u>2,919</u>	<u>2,713</u>	<u>9,310</u>
Student flow	<u>30,695</u>	<u>25,504</u>	<u>24,166</u>	<u>80,365</u>
Percent attrition	<u>11.98</u>	<u>11.45</u>	<u>11.12</u>	<u>11.59</u>

Even within the various major categories, the specific reasons for attrition vary significantly among NAVCRUITRACOMs. A few examples follow:

		<u>Percent of attrition (males only)</u>		
<u>Category</u>	<u>Sub-Category</u>	<u>Great Lakes</u>	<u>San Diego</u>	<u>Orlando</u>
Unsuitability	Lack of Motivation	11.8	20.5	31.8
Unsuitability	Personality Disorders	27.2	5.1	18.0
Misconduct	Prior Service Drugs	.8	8.9	1.5

When comparing total attrition for various categories to individual NAVCRUITRACOMs the following significant variances are noted: San Diego accounted for 259, or 78 percent of the 332 attrites classified as prior service drug use; and of the 1,824 psychological attrites, Great Lakes accounted for 999, or 55 percent of the total.

d. Significant variances by category/sub-category could indicate either misclassification or inconsistencies in processing recruits for discharge. Some variances will always occur, but large variances appear questionable. Similar significant variances occurred in FY 1977. NAVCRUITRACOMs expend valuable resources to gather attrition data and prepare monthly reports which CNTECHTRA uses to monitor training and to produce other reports. Since these reports receive management attention, every effort should be made to ensure that reported data is accurate.

Recommendation 6. CNTECHTRA review significant recruit attrition variances among NAVCRUITRACOMs, determine the accuracy of classifications, and determine the need for more consistent recruit processing procedures.

CNTECHTRA response. Concur. CNTECHTRA continually monitors variances in attrition classifications. From time to time, variances have been noted. In the majority of the cases, the category/subcategory in which the attrite is reported is determined by the judgment/decision of the appropriate review board.

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In many instances, the individual could possibly be classified in more than one category. CNTECHTRA will continue to monitor the categories of attrition closely to detect trends or disparities in the reporting procedures.

NAVAUDSVCNE comment. Although CNTECHTRA concurs with the recommendation, no action is indicated other than continuing as in the past to monitor categories of attrition. Our review disclosed that significant variances continually exist, not just from time to time. The judgments/decisions of review boards should only account for minor variances. However, if the variances caused by judgments/decisions are not minimal, the entire attrition classification procedure is compromised and resultant reports are ineffective. Accordingly, specific action is still required to determine if reported data is accurate and can be effectively used to monitor attrition.

## APPENDIX B

### ANALYSIS OF VARIANCE TABLES

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TABLE B-1. ANOVA SOURCE TABLE FOR SITES BY CATEGORIES

SOURCE	SS	df	MS	F	p	$\omega^2$
Total	165.45	107				
Sites	1.22	3	.41	2.41	.10	
Categories	120.32	8	15.04	88.47	.001	.004
SXC	31.34	24	1.31	7.71	.001	
Error	12.57	72	.17			

TABLE B-2. ANOVA SOURCE TABLE FOR CATEGORIES BY YEARS

SOURCE	SS	df	MS	F	p	$\omega^2$
Total	164.62	107				
Years	.98	2	.49	.98	NS	
Categories	120.32	8	15.04	30.08	.001	.718
YXC	3.02	16	.19	.38	NS	
Error	40.3	81	.50			

TABLE B-3. ANOVA SOURCE TABLE FOR SITES BY YEARS

SOURCE	SS	df	MS	F	P	$\omega^2$
Total	164.62	107				
Sites	1.15	3	.38	.22	NS	
Years	.90	2	.45	.27	NS	.164
Years & Sets	.73	6	.12	.07	NS	
Error	161.84	96	1.69			

APPENDIX C

COMPARISON OF THE USE OF PSYCHOLOGICAL CATEGORIES,  
PERSONALITY DISORDER/SITUATIONAL REACTION,  
ACROSS THREE RTCs FOR THREE FISCAL YEARS

FY 1978												FY 1979					
Great Lakes				San Diego				Orlando				Great Lakes				SAT	D
MONTH	PD	SR	TOTAL	PD	SR	TOTAL	PD	SR	TOTAL	MONTH	PD	SP	TOTAL	SR			
Oct 77	3.26	.06	3.32	.46	.46	.92	2.47	.38	2.85	Oct 78	5.06	.07	5.13	..	13		
Nov 77	3.12	.00	3.12	.49	.49	.98	2.15	.32	2.47	Nov 78	5.90	.00	5.90	.36	.27		
Dec 77	1.98	.00	1.98	.66	.42	1.08	1.49	.35	1.84	Dec 78	6.57	.00	6.57	.47	.26		
Jan 78	2.99	.00	2.99	.69	.27	.96	1.62	.32	1.94	Jan 79	7.09	.00	7.09	.31	.04		
Feb 78	3.34	.06	3.40	.93	.43	1.36	2.96	.19	3.15	Feb 79	8.53	.00	8.53	.41	.19		
Mar 78	3.48	.00	3.48	.62	.67	1.29	2.47	.41	2.88	Mar 79	5.06	.00	5.06	.22	.43		
Apr 78	4.21	.00	4.21	.60	.27	.87	2.30	.14	2.44	Apr 79	.00	5.15	5.15	.81	.23		
May 78	2.82	.00	2.82	.73	.40	1.13	3.25	.00	3.25	May 79	4.57	.00	4.57	.12	.49		
Jun 78	1.09	.04	1.13	.51	.28	.79	1.99	.05	2.04	Jun 79	4.39	.00	4.39	.35	.25		
Jul 78	3.16	.00	3.16	.50	.30	.80	3.36	.00	3.36	Jul 79	5.85	.00	5.85	.15	.39		
Aug 78	4.37	.00	4.37	.55	.42	.97	1.72	.00	1.72	Aug 79	2.72	.00	2.72	.64	.34		
Sep 78	4.43	.00	4.43	.47	.27	.74	1.55	.00	1.55	Sep 79	3.61	.00	3.61	.76	.68		
TOTAL	38.25	.16	38.41	7.21	4.68	11.89	27.33	2.16	29.49		59.35	5.22	64.57	4.89	3.70		

\* Attrition - Percent - Student Flow (Males)

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TABLE C-1. UNSUITABILITY: PSYCHOLOGICAL\*--  
PERSONALITY DISORDERS VS.  
SITUATIONAL REACTIONS

FY 1979										FY 1980									
	San Diego			Orlando			Great Lakes				San Diego			Orlando					
TOTAL	PD	SR	TOTAL	PD	SR	TOTAL	MONTH	PD	SR	TOTAL	PD	SR	TOTAL	PD	SR	TOTAL			
13	.26	.13	.39	2.34	.00	2.34	Oct 78	4.14	.00	4.14	.71	.71	1.42	.67	.61	1.28			
90	.30	.27	.63	.99	.00	.99	Nov 78	3.86	.00	3.86	.41	.65	1.06	.62	.52	1.14			
57	.47	.26	.73	2.42	.00	2.42	Dec 78	.00	4.58	4.58	.50	.59	1.09	.80	.29	1.09			
09	.37	.04	.35	1.24	.00	1.24	Jan 79	3.94	.00	3.94	.32	.49	.81	.89	.30	1.19			
53	.41	.19	.63	2.96	.00	2.96	Feb 79	5.31	.00	5.31	.79	.05	.84	.17	1.26	1.43			
06	.22	.43	.65	2.09	.0	2.16	Mar 79	4.98	.00	4.98	.13	.30	.42	.49	1.75	2.24			
15	.81	.23	1.04	2.67	.00	2.67	Apr 79	3.17	.00	3.17	.13	.40	.53	.40	1.05	1.45			
57	.12	.49	.61	3.59	.00	3.59	May 79	3.78	.00	3.78	.42	.32	.74	.96	1.64	2.60			
39	.35	.25	.60	1.61	.71	2.32	Jun 79	2.62	.00	2.62	.20	.34	.54	.54	.56	1.10			
85	.15	.39	.54	.97	.45	1.42	Jul 79	1.56	.00	1.56	.60	.18	.79	1.34	.00	1.34			
72	.64	.34	.98	.86	.77	1.63	Aug 79	.87	.00	.87	.42	.19	.61	.26	.05	.31			
61	.76	.68	1.44	.37	.65	1.02	Sep 79	3.71	.71	4.42	.47	.48	.95	.63	.75	1.38			
57	4.89	3.70	8.59	22.11	2.65	24.76	TOTAL	37.94	5.29	43.23	5.10	4.70	9.80	7.77	8.78	16.55			

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